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ABSTRACT

This paper attempts to identify those characteristics of a "good group" (sensitivity group) which should be emphasized or fostered if group members are to have a group experience which is meaningful to and productive for them. The research around which this report is based is discussed under the headings of sensitivity training groups, self-disclosure, trust, cohesiveness (interpersonal attraction), ambiguity tolerance locus of control, affect, and personal style. This quest for the elements which compose a vital group leads to a cognizance of the characteristics, attitudes, and dispositions which should be emphasized or nurtured during training. The variables of trust, self-disclosure, and cohesiveness are of current concern to the proponents of the t-group method. The expression of affect variable is another essential ingredient in vital group relations. These variables, in addition to locus of control, ambiguity tolerance, and sixteen personality factors, have been chosen as targets in the inquiry. Implications that the first four variables are related to the differentiation of a good group are found throughout the body of research. Only within the "good" encounter group does one find the unselfish giving and receiving which is sought by a number of people today. (Author/WS)

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Final Report

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U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

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PROBLEM AND OBJECTIVES

Problem Statement

Many elements of our society are reacting to the stresses and pressures they find inherent in the increasingly complex and impersonal social structure. The hippie movement is probably the most widely recognized of the revolts against the established order - an order which, in their eyes, is beset with deep anxieties, hypocrisy, and superficial values. A parallel movement by what has been labeled the "white collar hippie" has fostered the rapid spread of a relatively fresh educational method known as laboratory training. This approach was first developed in the early forties by a group of scientists who formed the National Training Laboratories Institute for Applied Behavioral Science, an official component of the National Education Association.

Although it is merely another attempt to recapture selfless and meaningful interaction among human beings, laboratory training or sensitivity training is currently a revolution in its own right. Research into the use of laboratory training (the t-group method) has increased during recent years and has secured a place in the science of human relations and behavior for laboratory methodology.

Assuming that the entire population of the United States cannot join the hippie crusade, the t-group method offers to the individual a means of expressing his own and experiencing others' emotions, e.g. anxiety, love, hostility, and depression, as well as the opportunity to develop or to restore his belief in the humanity of man. In short, it is a methodology which can deal with conative (affective) aspects of the learning process - an often-stated goal of educators. (See, for example, Bloom's taxonomy of educational objectives - affective domain.)

What constitutes a good sensitivity group has been established only in part. Major goals of t-groups have been defined, e.g., empathy, self-actualization, social perception, interpersonal attraction (cohesiveness), and self-awareness. In addition, groups have been rated by members and/or trainers on scales ranging from "excellent" to "poor" in order to discover which groups were satisfying to members and which groups left something to be desired. On the other hand, many questions are left unanswered, a few of which are the following: What types of behaviors or attitudes make a group "good?" Do some groups, due to characteristics, attitudes, and behaviors of the members, develop into "good groups" more quickly than others?

This quest for the elements which compose a vital group leads logically to a cognizance of the characteristics, attitudes, and dispositions to be emphasized or nurtured during training. Of current concern to proponents of the t-group method are the variables of trust, self-disclosure, and cohesiveness. The expression of affect variable, evasive in character, is another essential ingredient in vital group relations. These variables, along with several others, (locus of control, ambiguity tolerance, and sixteen personality factors) have been chosen as targets in the inquiry to be proposed. Implications that the first four variables are

somehow related to the differentiation of a good group from a poor one are found throughout the existing body of research. The other variables upon which the investigation will focus may have special significance inasmuch as the former ones (trust, self-disclosure, cohesiveness, and affect) may be scrutinized for links among themselves and to other variables.

Only within a "good" encounter group does one find the unselfish giving and receiving which is being sought by a number of people today. It appears, then, that, by measuring one's preference for certain elements thought to be necessary constituents of a good group, and attempting to increase the preference for these components, as well as the attitudes, characteristics, or dispositions themselves, the group or group experience will become more satisfying to the individual and beneficial to the society. In line with this rationale, a study was proposed concentrating upon the following major objectives: (1) identification of attitudes, characteristics, and dispositions of group members and leaders; (2) determination of the effects of sensitivity training upon the measured variables; and (3) examination of the variables as differentiated by dissimilar groups.

The purpose of studying the components of a "good group" was, as has been stated previously, to identify those characteristics which should be emphasized or fostered if group members are to have a group experience which is meaningful to and productive for them. The purpose of the treatment was to attempt the acquisition of significantly greater shifts on specially selected variables than would be obtained by chance. To detect the accomplishment of this aim, a similar comparison group was examined to rule out such factors as maturational and historical effects. In addition, a systematic study of the chosen variables as they exist and undergo alteration within the (treatment) groups was conducted. These efforts, hopefully, will aid in the explication of the good group construct, the delineation of the means by which certain desirable features of a group are developed, and the support for the effectiveness of laboratory training in reaching particular worthwhile ends.

Related Research

The vanguard of research from which this project extends is discussed under the headings of sensitivity training groups, self-disclosure, trust, cohesiveness (interpersonal attraction), ambiguity tolerance, locus of control, affect, and personality style.

Sensitivity Training Groups

The acceptance and utilization of the t-group or sensitivity training as a methodology for experiential learning has been widespread. Such limited work has been done to explore the value of the t-group for promoting personal growth, that many professionals have expressed concern about the need for more compelling evidence (Schutz and Allen, 1966; Clark and Culbert, 1965; Clark, Bulbert, and Bobele, 1968). The worth of t-group methodology is subject for controversy. Rogers (1967) states, "...but few people who have participated would doubt that something significant happens in these groups." The concern of this investigation was to identify from the "something alluded to by Rogers some researchable hypotheses. While admitting that people regard intensive group experience as either "strikingly worthwhile or deeply questionable," Rogers (1969) states that he feels "...we can learn much about the ways in which constructive personality

change comes about as we study this group process more deeply."

The National Training Laboratory Institute (1968) lists the following basic assumptions underlying t-groups: (1) each participant is responsible for his own learning; (2) the group leader's role is to facilitate the examination and understanding of the group's experiences, (3) a setting will be provided in which individuals can examine their experiences together in enough detail so that valid generalizations be drawn, (4) establishment of authentic relationship increases learning and self-esteem and decreases defensiveness; (5) authentic relationships allow one to communicate openly and minimize masking of feelings; (6) human relation skills will be maximized as a person examines the basic values underlying his behavior, acquires appropriate concepts and theory, practices new behavior, and receives feedback on the degree to which his behavior produces the intended impact. In support of these assumptions, Rogers (1967) states that intensive group workshops quickly allow an individual to become the person he wants to be.

The National Training Laboratory Institute (1968) reports that the benefits of t-groups are not equal for all participants. Based upon an average across a number of studies, approximately two-thirds of the participants are judged to have increased their skill in interpersonal relationships to the extent that it was reflected in observable behavior change.

Self-Disclosure

This study was concerned, in part, with the relationship between self-disclosure and the conditions produced in a group which enhances growth for the group members. The basic assumption is that self-disclosure leads to a healthy personality. This assumption is derived from Karen Horney's notion that neuroticism is characterized by self-alienation, the phenomen on being a stranger to oneself. Jourard (1964) contends that self-alienation can be reduced by learning to know oneself better through relating more openly or more transparently to others. A person who cannot disclose himself as he is and cannot establish a close relationship with at least one other human being stands in danger of mental breakdown (Jourard, 1959). Thus, self-disclosure is presented as an antidote to such personal conflicts as self-alienation, repression, and misunderstanding, the last of which is a contributing factor in fear and prejudice (Jourard, 1964; Jourard, 1959).

Self-disclosure as the process of communicating information about oneself to other persons has been studied as a variable along two main lines (Halverson, 1969). The readiness to confide personal information and its relevancy to the development of personal relationships has been shown to be significantly related to marital status, race, sex, some aspects of self, parent-cathexis, and disclosure reciprocity (Jourard and Lasakow, 1958; Jourard and Richman, 1963). While Jourard and Lasakow (1958) and Worthy, Gary, and Kahn (1969) report that persons who confide personal information to the group are well liked by the group members, Query's study (1964) gives no support to the assumption that people with similar self-disclosing tendencies prefer one another. The study did, however, suggest that one's attraction for therapy groups is positively related to one's ability to self-disclose. An additional study by Jourard and Landsman (1960) found that the amount of personal information which the

subjects revealed to their group was highly correlated both with the degree to which they know the members and with the amount of other group members had disclosed to them. Liking was only slightly correlated with disclosure.

Trust

Most major theoretical systems regarding the process of the t-group and the encounter group postulate trust as an early and necessary phase serving as a precursor to the establishment of individual differences, individual problem solving and group problem solving (Schutz, 1967; Culbert, 1969, Rogers, 1967).

As stated previously, belief in interpersonal communications is a basic characteristic of a healthy society; furthermore, trust is a necessary ingredient of meaningful interpersonal communications (Katz and Rotter, 1969). According to Mellenger (1956), a communicator who lacks trust in the recipient tends to conceal his own attitudes about an issue through evasive, compliant, or aggressive behavior. It has been found that the failure to trust others leads to social deterioration, as reflected in delinquency and interracial conflict (Rotter, 1967). In addition, Rotter suggests that distrust of others is dependent upon normlessness in the social organization. Hypothetically, normlessness, powerlessness, and alienation are related to the expectancy of external control of reinforcement, i.e., the belief that causating factors are extrinsic to oneself.

In a study concerned with the use of communication in establishing trust and with the conditions under which an individual would, on the basis of trust, establish a cooperative relationship with another person, Loomis (1959) concluded that subjects who communicated were more likely to perceive trust than noncommunicating subjects. The probability of perceiving trust increased as the level of communication increased. The majority of all the subjects either trusted and cooperated, or did not trust and did not cooperate. Deutsch (1960), in an earlier study utilizing an interpersonal game similar to that used by Loomis, purports a definite tendency for trusting subjects to be trustworthy and for suspicious subjects to be untrustworthy. Similar predispositional variables reflecting upon trust were noted by Hamsher, Geller, and Rotter (1968). They found that subjects with consistent attitudes of disbelief of the Warren Report were significantly less trusting and more external in their expectancy of control of reinforcement.

Cohesiveness

In previous investigations of group cohesiveness, researchers have subscribed to the conceptual definition of cohesiveness as "the resultant strength of all forces acting upon the members to remain in the group," (Festinger, 1950; Back, 1951; and Thibaut, 1950). However, Taquiri (1958) states that the one factor which is present in all types of groups is that of interpersonal attraction. Additional evidence that interpersonal attraction is a single factor of cohesiveness has been established by Smith (1969) in his review of literature. By retaining this limitation, cohesiveness of the group can be manipulated and measured. Interpersonal attraction, therefore, is the aspect of cohesiveness with which this study is concerned.

Group cohesiveness or interpersonal attraction, like self-disclosure and trust, is a necessary or supportive factor in the development of meaningful interpersonal communication and social relationships. This factor would include satisfaction with the group, relief from anxiety, increased self-confidence, ego strength, warmth, empathy, congruency, level of regard, unconditional regard, and social consciousness (Smith, 1969). In similar terms, Festinger (1950) suggests that groups help people to achieve goals with the support of others, and at times provide gratification of needs for approval. Thus, the more frequently group members interact with one another, the greater the probability is that they will develop a mutual positive attitude among themselves (Homans, 1961).

Ambiguity Tolerance

Tolerance of ambiguity may be viewed as a general tendency to perceive ambiguous materials or situations as non-threatening or even desirable. An ambiguous situation is one which "...cannot be adequately structured or categorized by the individual because of insufficient cues," (Budner, 1962). Ambiguity tolerance is further defined by English and English (1958) as a "...willingness to accept a state of affairs capable of alternate interpretations, or of alternate outcomes, e.g., feeling comfortable (or at least not feeling uncomfortable) when faced by a complex social issue in which opposed principles are intermingled. Low ambiguity tolerance is shown by the desire to have everything reduced to black and white..."

Most situations involving interpersonal interaction in a discontinuous culture produce ambiguities for persons involved who hold different world views, e.g. the generation gap, black-white relations, social class barriers, and the credibility gap. In an ambiguous situation the individual with low ambiguity tolerance tends to utilize submission (avoidance behavior) and/or denial (repression). Submission is the recognition of a situation as inalterable by the individual (external locus of control). In denial, objective reality, even if only in the phenomenological world of the individual, is altered to suit the desires of the perceiver (Budner, 1962). A person employing this form of defense, therefore, would seem to be a low-trusting individual, and, in turn, a low self-discloser.

Locus of Control

Locus of control refers to the disposition to perceive one's reinforcements as consequences of one's own behavior (internally controlled) or as due to factors extrinsic to oneself, such as fate, chance, and powerful others (externally controlled). It is hypothesized that the internal versus external control of reinforcement variable is of major significance in understanding the nature of learning processes in a great variety of learning situations (Rotter, 1966). In regard to learning, Rotter further hypothesizes that behavior preceding reinforcement is more likely to be strengthened or weakened if the person receiving the reinforcement is internally controlled. This phenomenon should logically occur, since the internal perceives the reinforcement as contingent upon his own behavior. In the same vein, internals are particularly resistive to subtle manipulation, reacting with obvious negativism. When given the conscious choice, however, the internal is not resistive (Gore, 1962).

The control variable has been found to correlate significantly with interpersonal trust (Hamsher, Geller, and Rotter, 1968). This relationship is typically higher for males than for females. Results of a recent study demonstrated an E-I shift in members of a t-group (Williams, 1970).

In summary, the control expectancy variable is useful in all types of experiments and may be related to problems such as psychopathology, apathy, and withdrawal phenomena (Lefcourt, 1966).

Affect

The tendency to like and feel liked or to dislike and feel disliked, is one of the most pervasive characteristics of the dyad (Backman & Secord, 1959). Backman and Secord (1959) experimentally examined the cause and effect relationship between attraction and feeling liked by confirming the hypothesis: "Other things being equal, the probability of Person A being attracted to Person B will be higher if B is perceived by A as liking A." The influence of negative affect and attraction was studied by Aronson and Cope (1969). Their data indicate that: (a) not only do we like someone who likes someone that we like, but we like someone who dislikes someone we dislike, (b) we dislike someone who likes someone we dislike and (c) we dislike someone who dislikes someone we like. This follows even though it is clear that the respective reasons for liking or disliking the target person are unrelated.

The relationship between attraction and attitude similarity was studied by Burne (1961). He experimentally confirmed two hypotheses: (a) a stranger who is known to have attitudes similar to those of the subject is better liked than a stranger with attitudes dissimilar to those of the subject; (b) a stranger who is known to have attitudes similar to those of the subject is judged to be more intelligent, better informed, more moral, and better adjusted than a stranger with attitudes dissimilar to those of the subject.

The above research discussed the target object in terms of individuals. In a study conducted by Aronson and Mills (1959) dealing with the severity of initiation and attraction, the target object was the group. They found that subjects who underwent a severe initiation to become members of a group perceived the group as being significantly more attractive than did those who underwent a mild initiation or no initiation.

Personality Style

It is likely that some personality variables will effect some individuals' perceptions of an consequent participation in the group. Rogers (1951) purported that the self-accepting person, when it is appropriate, will more readily recognize negative aspects of others. This is possible because the self-accepting person will not be threatened and will not distort his perceptions in order to defend himself. This is not contradictory to Roger's notion that the person who is accepting of himself is likely to be more accepting of others. According to Shrauger (1964), acceptance of others is not the same as seeing them favorably. Other aspects of personality and interpersonal relations were studied by Halverson (1969). He found that authoritarianism, low conceptual complexity, and the belief in human nature as evil can be viewed as three distinct cognitive-motivational bases for defensiveness towards others.

It was demonstrated by Vroom (1960) that the magnitude of the effect participation in decision-making has on the attitudes and motivations of supervisors is a function of certain personality characteristics. Authoritarians and persons with weak independence needs are unaffected by the opportunity to participate in making decisions. Conversely, equalitarians are those who have strong independence needs develop more positive attitudes toward their jobs and greater motivation for effective performance through participation.

Harrison (1965) conducted an experimental study in which he worked with group combinations classified according to two dimensions: (1) highly person oriented or highly work oriented individuals and (2) high structure or low structure individuals. The investigation yielded evidence for two processes which Harrison claimed to be the focal point in laboratory learning: (1) confrontation with opposites and (2) support for one's current personal style. Harrison concluded that homogeneous groups do not provide the confrontation needed for optimum learning. In addition, he reasoned that the superiority of mixed groups suggests that feelings of completion, cohesion, and emotional satisfaction may not be the appropriate criteria for evaluating the learning impact of a t-group.

Objectives

The first major objective is to identify changes in characteristics, attitudes, and perceptual dispositions of group members as a result of sensitivity training.

1.1 Are persons more internayly controlled after having been in a group experience?
1.2 Are group members more tolerant of ambiguity after a group experience?
1.3 Does a group experience have a positive or negative effect upon certain specified personality traits?
1.4 Are group members more self-disclosing after sensitivity training?
1.5 Are group members more trusting after sensitivity training?

The second major objective to the study was to determine whether or not changes, if they occur, are attributable to certain variables such as cohesiveness, trust, leadership style, etc.

1.1 Will the increase in preference for negative affect in a group, if any, be greater than that for positive affect after sensitivity training?

DESCRIPTION OF ACTIVITIES

Population and Sample

The model for the study makes it necessary that the population and the sample be the same. The population is to consist of eight intact groups of students enrolled in graduate courses at West Virginia University. The

first is a master's level course in group processes (yielding the group members for the study), the second is an extension course which is identical to the first course except that it is taught in an off-campus setting. The sample will be assigned at random to eight small groups. Each small group will consist of approximately eight group members and two co-trainers. Pairs of co-leaders will be randomly assigned to groups. Group membership will not be altered during the course of investigation.

Design

The design utilized in the study is the Solomon Four Group Design. The Solomon design can be illustrated as follows (Cambell and Stanley, 1963):

R	O_1	X O_2
R	O_3	O_4
R		X O_5
R		O_6

Data and Instrumentation

The study was designed with several purposes in mind. Of greatest import, however, is the overall purpose - the discovery of impact of group experience upon its participants. Those variables under investigation and upon which the choice of the instruments to be administered is contingent are as follows: (1) trust, (2) self-disclosure, (3) group cohesiveness, (4) locus of control, (5) ambiguity tolerance, and (6) personality variables. The first three variables are considered to be significant processes which contribute to the experience, and will be studied as such inasmuch as they relate to a final outcome: whether or not the group is considered by its members to be "good." Pre and post-test measures will be taken on the last three variables to note any change occurring during sensitivity training.

Trust refers to the expectancy held by an individual or a group that the promise of another individual or group can be relied upon (see literature section). This expectancy is an important variable in human learning in general and is of particular import in the adjustment and survival of any social group.

The Rotter Interpersonal Trust Scale, an additive scale based upon the Likert model, was administered before and after training. Twenty-five items measure trust and fifteen filler items attempt to disguise the purpose of the scale. The valid items are balanced with respect to "agree"-"disagree" response and have shown reasonable spread over the five Likert categories. Internal consistency based upon split-half reliability was significant (.75 to .77). Test-retest reliability over a seven month period was also impressive (.56). Sociometric analysis has revealed relatively good construct validity (.39) for the ITS, and discriminant validity is established in part by a low correlation (.10) with the Marlowe-Crown Social Desirability Scale.

The measurement of self-disclosure on the part of the subjects was achieved through the use of three independent raters utilizing a self-disclosure scale

developed by Carkhuff and later adapted by Crisler. (Appendix A). Briefly, the use of this rating scale assigns a weighting from one to five for a S's response, a larger score indicates a greater degree of self-disclosure.

The three raters used were graduate students in Counseling and Guidance, all unfamiliar or naive prior to the actual study concerning the use of this scale. Training in the use of the self-disclosure scale consisted of the following procedures:

1. One of the experimenters randomly selected six, ten-minute segments of t-group behavior previously recorded on a series of audio tapes. The pool from which these segments were selected consisted of approximately forty hours of group activity recorded for another study dealing with group interaction. The type of behavior on the six, ten-minute segments were judged to be parallel to the group work under study in the present investigation.
2. The first contact with the three raters was concerned with a discussion of the Self-Disclosure Scale and how it could be used. Only after the raters clearly understood the rating procedures and had practiced rating responses did they begin rating the sample segments.
3. The sixty-minutes of tape samples were then rated independently by the raters and recorded on separate rating sheets.
4. Seven days later the same six segments (ten-minutes each in length) were again rated independently by the three raters.
5. The E then took the products of both rating sessions and correlated the first set of scores from each rater with that rater's second set of scores to achieve a measure of intrarater reliability.
6. Finally, the last set of scores for each rater was used to achieve a measure of interrater reliability using the Ebel technique.

The results of these procedures achieved intrarater reliability coefficients of .74, .65, and .60. The important interrater reliability coefficient was .76.

With this level of rater reliability established, the audio recordings of the group sessions in the present study were then divided into equal thirds and labeled as early, middle, and late sessions. From each of these portions three segments, ten-minutes in length (total 90 minutes) were randomly selected for each group under study. Of the five groups in the present investigation, only three groups had been recorded in a way that the audio tapes were intelligible. Thus, a total of 270 minutes of group behavior was rated for self-disclosure. Again, these segments were randomly selected from early, middle, and late sessions for each of three groups.

These tape samples were rated on three separate occasions utilizing the same procedures as used in the training of the raters. At each occasion a leader of the group being rated was present to identify the group member making a ratable response. Thus, an index was able to be achieved concerning the level of self-disclosure present in not only the total group, but also for a particular group member. After the rating was complete, the ratings for each response were averaged to achieve a single score for each subject response.

Group cohesiveness has recently been defined as the resultant strength of all forces acting upon the members to remain within the group. This interpersonal attraction is indicated by an atmosphere offering to the individual members of the group support which they may not have without the group. Group cohesion has been found to include the dimension of satisfaction with the group, therefore, relationship between this variable and such others as trust and self-disclosure are expected.

The cohesiveness variable was measured by a one-item sociometric device allowing unlimited choice of fellow group members with respect to the dimension of "liking." The score (attraction-to-the-group) for an individual was found by the following method: the number of group members the individual chooses is divided by the total number of members in the group minus one (because the person cannot select himself.) This result was then multiplied by one hundred to eliminate fractional numbers. Group means were also computed to identify high and low cohesive groups.

Locus of control refers to the disposition to perceive one's reinforcements as consequences of his own behavior or as due to outside factors (see literature section. This variable is concerned with the degree to which an individual accepts personal responsibility for what happens to him.

The Rotter Scale of Internal-External Locus of Control is a 23 item forced-choice scale of the summative model. It also includes six filler items bringing the total number of items to 29. It has been found to possess high test-retest reliability (.49 to .83) and internal consistency (.65 to .79). The scale correlates satisfactorily with other methods assessing the same variable, e.g., a Likert Scale, indicating concurrent validity. Discriminant validity is evidenced by low correlations with such variables as the social desirability response and intelligence. Face validity and construct validity are demonstrated by differences obtained for different types of populations which are consistent with expectations and predicted differences in behavior for individuals above and below the median, respectively. In summary, the Rotter scale appears to offer good psychometric characteristics and was used in this study.

Tolerance of abmiguity refers to the tendency to view ambiguous materials or situations as non-threatening or even desirable (see literature section). Inasmuch as a group experience is an ambiguous situation, the high ambiguity tolerators might similarly be the high self-disclosers, since they tend to view the experience as non-threatening or even gratifying. This variable can be considered an independent variable, can provide a basis for dichotomization as did the locus of control variable and, can be employed, in a like manner, as a means of studying other variables.

The MacDonald Revised Scale of Ambiguity Tolerance (AT-20), a 20 item true-false scale of the summative model, was used to measure ambiguity tolerance. It exhibits satisfactory test-retest reliability (.63) and internal consistency (.86). A stability coefficient of .63 is also convincing. The AT-20 has been found to be free of social desirability response bias, demonstrating discriminant validity. Evidence for construct validity is indicated by support

obtained for certain hypotheses, e.g., ambiguity tolerance is related to performance of ambiguous tasks. Concurrent validation of the measure utilizing another paper-pencil instrument and two performance tasks is presently being done. Overall, the AT-20 seems to be a useful and appropriate instrument in the investigation of ambiguity tolerance.

Personality style was measured using the 16 Personality Factor Questionnaire.

Description of Sixteen Personality Factor Questionnaire

Make-Up Test: This test is for ages 15 and 16 and over. It consists of four forms -- one of these is a short form with 105 items which is available in conjunction with the Cultural Fair Intelligence Test as given by the Institute for Personality and Ability Testing. Another form has a booklet and taped instructions for semiliterates and tape alone for illiterates. There is no reliability data for this form. The other two forms have 187 items each. There are 10 to 13 items for measuring each of the 16 personality factors. Responses are recorded on IBM forms for machine scoring or made directly in the book for hand scoring, and is considered to be easy to administer. Each item is a statement concerning interests, preferences, or self-reports of behavior. The responses are trichotomous in form, e.g., the testee has three alternatives: YES, NO, or UNCERTAIN. The examiner may eliminate the final alternative if he wishes.

Purpose of Test: Cattell purports to measure all main dimensions of personality as revealed by factor analysis. However, the author wants not to detect ability or a pathological state but to give the maximum information in the shortest time about the dimensions of personality. Cattell looks at these 16 personality factors as "source traits" the basic attributes from which spring the more overt behavioral characteristics which are observable and describable. The latter are "surface traits," the everyday behavior which allows other persons to attempt to type your personality.

Norms, Reliability and Validity: There are student and adult norms for use in guidance, personnel situations, and leadership selection. These norms are in the form of a 10-point scale score profile for each of 25 occupations, leadership indices, and 5 clinical syndromes. The profile of the testee is compared with mean composite profiles of people already in that occupation. Clinical norms are given for the 5 syndromes which are: Schizophrenics, Manic-depressives, Neurotics, Psychopaths, and Convicts.

The reliability coefficients for this test are not high. Split-half reliability results of .54 to .93; .50 to .88; .54 to .87 are common and unsatisfactory and insignificant. However, split-half reliability when the two long forms (A & B) have been combined has been higher with a range of .71 to .93. This indicates the test might be good for group prediction only.

There are also doubts about the construct and predictive validity of this test, and more statistical data is needed to show how well the 16 PF scores predict the behavior the test is intended to measure.

Scale Description: The following is a description of each of the 16 scales used in this test:

Factor A - RESERVED, detached, critical, cool vs. OUTGOING, warmhearted, easy-going, participating. This scale measures one's capacity for social interaction.

Factor B - LESS INTELLIGENT, concrete thinking vs. MORE INTELLIGENT, abstract thinking, bright. Indicates scholastic mental capacity.

Factor C - AFFECTED BY FEELINGS, emotionally less stable, easily upset, vs. EMOTIONALLY STABLE, faces reality, calm, mature. Measures ego strength.

Factor E - HUMBLE, mild, accommodating, conforming, vs. ASSERTIVE, independent, aggressive, stubborn. Measures dominance or submissiveness.

Factor F - SOBER, prudent, serious, taciturn, vs. HAPPY-GO-LUCKY, impulsively lively, gay, enthusiastic.

Factor G - EXPEDIENT, evades rules, feels few obligations, vs. CONSCIENTOUS, perserving staid, rule bound. Measures superego strength.

Factor H - SHY, restrained, diffident, timid, vs. VENTURESOME, socially bold, uninhibited, spontaneous.

Factor I - TOUGH MINDED, self-reliant, realistic, no-nonsense, vs. TENDER-MINDED, dependent, over-protected, sensitive.

Factor L - TRUSTING, adaptable, free of jealousy, easy to get on with, vs. SUSPICIOUS, self-opinionated, hard-to-fool.

Factor M - PRACTICAL, careful, convention, proper, vs. IMAGINATIVE, wrapped up in inner urgencies, careless of practical matters, bohemian.

Factor N - FORTHRIGHT, natural, artless, sentimental, vs. SHREWD, calculating, worldly, penetrating. Measures shrewdness.

Factor O - PLACID, self-assured, confident, serene, vs. APPREHENSIVE, worrying, depressive, troubled. Measures untroubled adequacy or guilt proneness.

Factor Q1 - CONSERVATIVE, respecting established ideas, vs. EXPERIMENTING, critical, liberal, analytical, free-thinking. Measures conservatism or radicalism.

Factor Q2 - GROUP-DEPENDENT, a "joiner," sound follower, vs. SELF-SUFFICIENT, prefers own decisions, resourceful. Measures group adherence or self-sufficiency.

Factor Q3 - UNDISCIPLINED, self-conflict, careless of protocol, vs. CONTROLLED, socially precise, following self-image.

Factor Q4 - RELAXED, tranquil, torpid, unfrustrated, vs. TENSE, frustrated, driven, overwrought.

Summary: There are several criticisms of the 16 PF test. The results are not interpretive or dynamic; they give you a pattern of scores but not a whole individual. The factor traits seem to have some validity, but also tend to remain abstract and leave out the richness of personality.

There are the criticisms just mentioned - low reliability, doubtful validity, and also doubt about the independence of the 16 factor scales. However, there are also positive aspects of the 16 PF. Subjects find it interesting, and it has received substantial acceptance, and has had great impact on self-report personality measurement. It does need further fruitful research,

but there is evidence indicating profile differences are significant and it could be useful in industry, colleges, or clinics.

Analysis

Analysis of variance for unequal numbers and analysis of covariance were used. These techniques are described in Winer (1962).

FINDINGS

Preliminary Analysis

The first step in the analysis of the data was to conduct a two way analysis of variance (anova). In the tables which follow the results of that analysis are presented. It should be noted that the analysis was conducted using past test scores only. In reading these tables it should also be remembered that Group main effects is the analysis of the post test scores of the experimental and control groups which received no pre-test. The Test main effects refers to those groups which had a pre test conducted.

Table 1

ANOVA for Variable Rotter IE

SOURCE	DF	SS	MS	F VALUE	Prob of F
GROUP	1	10.58	10.58	.52	.52
TEST	1	57.68	57.68	2.85	.09
GROUP *TEST	1	10.96	10.96	.54	.52
RESIDUAL	76	1537.14	20.22		
CORRECTED TOTAL	79	1616.38	20.46		

Table 2

ANOVA for Variable Ambiguity

SOURCE	DF	SS	MS	F VALUE	Prob of F
GROUP	1	7.29	7.29	.59	.55
TEST	1	90.75	90.75	7.42	.008

Table 2 (cont.)

ANOVA for Variable Ambiguity

SOURCE	DF	SS	MS	F VALUE	Prob of F
GROUP*TEST	1	28.75	28.75	2.35	.12
RESIDUAL	76	929.14	12.22		
CORRECTED TOTAL	79	1055.95	13.36		

Table 3

ANOVA for Variable MD 16PF

SOURCE	DF	SS	MS	F Value	Prob of F
GROUP	1	3.20	3.20	.87	.64
TEST	1	9.76	9.76	2.66	.10
GROUP*TEST	1	3.35	3.35	.91	.65
RESIDUAL	78	285.90	3.66		
CORRECTED TOTAL	81	302.24	3.73		

Table 4

ANOVA for Variable A 16PF

SOURCE	DF	SS	MS	F Value	Prob of F
GROUP	1	0.95	0.95	.22	.64
TEST	1	0.61	0.61	.14	.71
GROUP*TEST	1	0.095	0.095	.02	.87
RESIDUAL	78	335.02	4.29		
CORRECTED TOTAL	81	336.69	4.15		

Table 5

ANOVA for Variable B_16PF

SOURCE	DF	SS	MS	F VALUE	Prob of F
GROUP	1	11.65	11.65	3.51	.06
TEST	1	16.28	16.28	4.91	.03
GROUP*TEST	1	.69	.69	.21	1.00
RESIDUAL	78	258.84	3.31		
CORRECTED TOTAL	81	286.09	3.53		

Table 6

ANOVA for Variable C 16PF

SOURCE	DF	SS	MS	F VALUE	Prob of F
GROUP	1	6.13	6.13	1.94	.16
TEST	1	4.19	4.19	1.32	.25
GROUP*TEST	1	2.22	2.22	.70	.59
RESIDUAL	78	246.05	3.15		
CORRECTED TOTAL	81	258.59	3.19		

Table 7

ANOVA for Variable E 16PF

SOURCE	DF	SS	MS	F VALUE	Prob of F
GROUP	1	2.00	2.00	.38	.54
TEST	1	1.32	1.32	.25	.62
GROUP*TEST	1	10.94	10.94	2.09	.14
RESIDUAL	78	408.26	5.23		
CORRECTED TOTAL	81	422.54	5.21		

Table 8

ANOVA for Variable F_16PF

SOURCE	DF	SS	MS	F VALUE	Prob of F
GROUP	1	1.76	1.76	.28	.60
TEST	1	14.34	14.34	2.33	.12
GROUP*TEST	1	10.83	10.83	1.76	.18
RESIDUAL	78	479.80	6.15		
CORRECTED TOTAL	81	506.74	6.25		

Table 9

ANOVA for Variable G_16PF

SOURCE	DF	SS	MS	F VALUE	Prob of F
GROUP	1	0.25	0.25	.08	.76
TEST	1	20.29	20.29	7.03	.009
	1	0.46	0.46	.16	.69
[illegible]UAL	78	225.00	2.88		
CORRECTED TOTAL	81	246.01	3.03		

Table 10

ANOVA for Variable H_16PF

SOURCE	DF	SS	MS	F VALUE	Prob of F
GROUP	1	0.20	0.20	.03	.84
TEST	1	24.62	24.62	4.66	.03
GROUP*TEST	1	6.31	6.31	1.19	.27
RESIDUAL	78	411.74	5.27		
CORRECTED TOTAL	81	442.89	5.46		

Table 11

ANOVA for Variable I_16PF

SOURCE	DF	SS	MS	F VALUE	Prob of F
GROUP	1	7.41	7.41	2.72	.09
TEST	1	0.44	0.44	.16	.69
GROUP*TEST	1	0.31	0.31	.11	.73
RESIDUAL	78	212.27	2.72		
CORRECTED TOTAL	81	220.45	2.72		

Table 12

ANOVA for Variable L_16PF

SOURCE	DF	SS	MS	F VALUE	Prob of F
GROUP	1	10.67	10.67	2.99	.08
TEST	1	2.75	2.75	.77	.61
GROUP*TEST	1	2.69	2.69	.75	.60
RESIDUAL	78	278.36	3.56		
CORRECTED TOTAL	81	294.48	3.63		

Table 13

ANOVA For Variable M_16PF

SOURCE	DF	SS	MS	F VALUE	Prob of F
GROUP	1	12.14	12.14	2.80	.09
TEST	1	0.18	0.18	.04	.83
GROUP TEST	1	0.07	0.07	.01	1.00
RESIDUAL	78	338.05	4.33		
CORRECTED TOTAL	81	350.30	4.32		

Table 14

ANOVA for Variable N_16PF

SOURCE	DF	SS	MS	F VALUE	Prob of F
GROUP	1	1.53	1.53	.62	.56
TEST	1	1.63	1.63	.66	.57
GROUP*TEST	1	0.30	0.30	.12	.72
RESIDUAL	78	192.58	2.46		
CORRECTED TOTAL	81	196.04	2.42		

Table 15

ANOVA for Variable O_16PF

SOURCE	DF	SS	MS	F VALUE	Prob of F
GROUP	1	0.12	0.12	.04	.83
TEST	1	2.03	2.03	.66	.57
GROUP*TEST	1	0.90	0.90	.29	.59
RESIDUAL	78	239.31	3.06		
CORRECTED TOTAL	81	242.39	2.99		

Table 16

ANOVA for Variable Q1_16PF

SOURCE	DF	SS	MS	F VALUE	Prob of F
GROUP	1	10.34	10.34	2.48	.11
TEST	1	0.68	0.68	.16	.68
GROUP*TEST	1	3.87	3.87	.93	.66
RESIDUAL	78	324.21	4.15		
CORRECTED TOTAL	81	339.12	4.18		

Table 17

ANOVA for Variable Q2_16PF

SOURCE	DF	SS	MS	F VALUE	Prob of F
GROUP	1	4.45	4.45	1.51	.22
TEST	1	4.14	4.14	1.41	.23
GROUP*TEST	1	0.53	0.53	.18	.67
RESIDUAL	78	229.41	2.94		
CORRECTED TOTAL	81	238.54	2.94		

Table 18

ANOVA for Variable Q3_16PF

SOURCE	DF	SS	MS	F VALUE	Prob of F
GROUP	1	1.21	1.21	.39	.54
TEST	1	0.02	0.02	.008	.92
GROUP*TEST	1	1.97	1.97	.68	.56
RESIDUAL	78	242.87	3.11		
CORRECTED TOTAL	81	246.09	3.03		

Table 19

ANOVA for Variable Q4_16PF

SOURCE	DF	SS	MS	F VALUE	Prob of F
GROUP	1	10.20	10.20	2.74	.09
TEST	1	6.91	6.91	1.86	.17
GROUP*TEST	1	3.81	3.81	1.02	.31
RESIDUAL	78	290.28	3.72		
CORRECTED TOTAL	81	311.21	3.84		

An alpha level of .10 was established as a criterion level for the preliminary analysis. This was for the purpose of making a type II error. An inspection of tables 1-19 reveals that five of the F values for the group with no pre-test and six of the F values for the group which was pre-tested are at or above the established alpha level. Since only two significant F values would be expected by chance the data suggested the experimental treatment was to some degree effective. However, before this conclusion could be reached, further analysis had to be conducted.

Analysis of Covariance

A careful perusal of the data revealed three possible explanations for the significant F values observed in the preliminary analysis. First, the differences could have been the result of the experimental treatment. Second, the differences could have occurred because the groups were not equated properly at the outset. Third, there could have been a leadership effect with certain of the leaders contributing to the observed differences while others did not. It was decided that an analysis of covariance would be conducted, but because of the nature of the design only those groups which were pre tested could be analyzed in this manner. This is unfortunate since the outcomes of the groups of two leaders could not be examined since their groups were not pre tested. The results of the analysis of covariance (ANCOVA) follow. In reading these tables is should be noted that Group refers to the analysis of the control vs the experimental; that Leader is an analysis of leader 1 vs leader 2; that Group*Leaders is the interaction between the leaders and his performance in control and experimental group; and the fourth variable is the covariate.

Table 20

ANOCOVA for Variable Rotter IE

SOURCE	DF	SEQUENTIAL SS	F VALUE	Prob of F
GROUP	1	0.63	0.04	.82
LEADER	1	44.69	3.10	.08
GROUP*LEADER	1	51.86	3.59	.06
ROTTRIEP	1	368.08	25.53	.0001

Table 21

ANOCOVA for Variable Ambiguity Tol

SOURCE	DF	SEQUENTIAL SS	F VALUE	Prob of F
GROUP	1	18.95	3.37	.07
LEADER	1	6.75	1.20	.28
GROUP*LEADER	1	3.61	0.64	.56
AMBIGUTP	1	137.80	24.55	.0001

Table 22

ANOCOVA for Variable Md 16PF

SOURCE	DF	SEQUENTIAL SS	F VALUE	Prob of F
GROUP	1	8.05	2.69	0.11
LEADER	1	0.93	0.31	0.58
GROUP*LEADER	1	0.98	0.33	0.57
Md 16PFP	1	0.06	0.02	0.87

Table 23

ANOCOVA for Variable A 16PF

SOURCE	DF	SEQUENTIAL SS	F VALUE	Prob of F
GROUP	1	0.44	0.23	.63
LEADER	1	1.78	0.96	.66
GROUP*LEADER	1	24.51	13.28	.001
A_16PFP	1	76.34	41.36	.000

Table 24

ANOCOVA for Variable B16PF

SOURCE	DF	SEQUENTIAL SS	F VALUE	Prob of F
GROUP	1	1.80	0.72	.59
LEADER	1	1.88	0.75	.60
GROUP*LEADER	1	12.88	5.14	.02
B_16PFP	1	16.18	6.46	.01

Table 25

ANOCOVA for Variable C 16PF

SOURCE	DF	SEQUENTIAL SS	F VALUE	Prob of F
GROUP	1	0.48	0.23	0.63
LEADER	1	0.08	0.03	0.83
GROUP*LEADER	1	9.69	4.63	0.03
C_16PFP	1	18.17	8.68	.005

Table 26

ANOCOVA for Variable E 16PF

SOURCE	DF	SEQUENTIAL SS	F VALUE	Prob of F
GROUP	1	13.07	2.99	.89
LEADER	1	0.01	0.00	.94
GROUP*LEADER	1	0.25	0.06	.80
E_16PFP	1	52.02	11.91	.001

Table 27

ANOCOVA for Variable F 16PF

SOURCE	DF	SEQUENTIAL SS	F VALUE	Prob of F
GROUP	1	10.89	3.83	0.07
LEADER	1	7.71	2.39	0.12
GROUP*LEADER	1	0.30	0.09	0.75
F_16PFP	1	74.15	23.02	0.0001

Table 28

ANOCOVA for Variable G 16PF

SOURCE	DF	SEQUENTIAL SS	F VALUE	Prob of F
GROUP	1	1.32	1.08	0.30
LEADER	1	3.56	2.91	0.09
GROUP*LEADER	1	4.21	3.45	0.06
G_16PFP	1	41.37	33.83	0.0001

Table 29

ANOCOVA for Variable H 16PF

SOURCE	DF	SEQUENTIAL SS	F VALUE	Prob of F
GROUP	1	3.11	1.29	0.26
LEADER	1	0.55	0.23	0.63
GROUP*LEADER	1	48.15	20.06	0.0002
H_16PFP	1	80.23	33.43	0.0001

Table 30

ANOCOVA for Variable I 16PF

SOURCE	DF	SEQUENTIAL SS	F VALUE	Prob of F
GROUP	1	4.10	1.84	.18
LEADER	1	0.01	0.00	.94
GROUP*LEADER	1	0.78	0.35	.56
I_ 16PFP	1	43.02	19.30	.00

Table 31

ANOCOVA for Variable L 16PF

SOURCE	DF	SEQUENTIAL SS	F VALUE	Prob of F
GROUP	1	1.17	0.45	0.51
LEADER	1	0.003	0.001	0.97
GROUP*LEADER	1	16.97	6.52	0.01
L_16PFP	1	24.19	9.29	0.004

Table 32

ANOCOVA for Variable M 16PF

SOURCE	DF	SEQUENTIAL SS	F VALUE	Prob of F
GROUP	1	2.25	0.91	0.65
LEADER	1	1.90	0.77	0.61
GROUP*LEADER	1	7.82	3.17	0.08
M_16PFP	1	67.47	27.36	0.0001

Table 33

ANOCOVA Variable N 16 PF

SOURCE	DF	SEQUENTIAL SS	F VALUE	Prob of F
GROUP	1	3.11	1.67	0.20
LEADER	1	1.45	0.77	0.61
GROUP*LEADER	1	0.50	0.27	0.61
N_16PFP	1	42.73	22.94	0.0001

Table 34

ANOCOVA Variable O 16PF

SOURCE	DF	SEQUENTIAL SS	F VALUE	Prob of F
GROUP	1	0.34	0.14	0.71
LEADER	1	3.30	1.35	0.25
GROUP*LEADER	1	1.33	0.54	0.52
O_16PFP	1	64.40	26.46	0.0001

Table 35

ANOCOVA for Variable Q1 16PF

SOURCE	DF	SEQUENTIAL SS	F VALUE	Prob of F
GROUP	1	10.72	3.14	0.08
LEADER	1	3.74	1.09	0.30
GROUP*LEADER	1	17.81	5.22	0.02
Q1_16PFP	1	55.86	16.39	0.00

Table 36

ANOCOVA for Variable Q2 16PF

SOURCE	DF	SEQUENTIAL SS	F VALUE	Prob of F
GROUP	1	2.02	0.84	0.63
LEADER	1	0.05	0.02	0.87
GROUP*LEADER	1	0.14	0.06	0.80
Q2_16PFP	1	35.55	14.73	0.0008

Table 37

ANOCOVA for Variable Q3 16PF

SOURCE	DF	SEQUENTIAL SS	F VALUE	Prob of F
GROUP	1	2.07	0.74	0.60
LEADER	1	0.79	0.28	0.60
GROUP LEADER	1	1.91	0.68	0.58
Q3_16PFP	1	19.06	6.84	0.01

Table 38

ANOCOVA for Variable Q4 16PF

SOURCE	DF	SEQUENTIAL SS	F VALUE	Prob of F
GROUP	1	1.3	0.63	0.56
LEADER	1	4.1	1.97	0.16
GROUP*LEADER	1	8.3	3.93	0.05
Q4_16PFP	1	43.3	20.38	0.0002

An examination of tables 19-38 revealed that 17 of the 19 covariates were different at a statistically significant level (.05 and above). This supported our hypothesis that the groups were not truly different at the outset. Additionally the fact that only one post test variable (Rotter IE) was statistically different than the adjusted pre-test mean leads us to conclude that the experimental treatment was not significantly more effective than the placebo groups. However, examination of these variables does not fully explain why this result occurred.

The leadership variable became somewhat clearer as a result of the covariance analysis. None of the comparisons between leader 1 and leader 2 were significant. The interaction effect indicates that in seven instances the leaders were more effective with certain types of groups, but this finding alone when compared to the other results tends to be insignificant.

Process Variables:

At the outset it was determined that certain process variables would be examined to determine whether or not they had any bearing upon the outcomes of the study. Since the outcomes of the study showed little or no change these variables may be less revealing.

Trust:

It was anticipated that group members in experimental groups would become more trusting than those in control groups. The data in table 39 indicates that this was not the case. This analysis is just

Table 39

ANOCOVA for Process Variable Trust

SOURCE	DF	SEQUENTIAL SS	F VALUE	Prob of F
GROUP	1	9.81	.14	.71
LEADER	1	49.67	.71	.59
GROUP* LEADER	1	2.88	.04	.83
ROTTER TrP	1	1324.96	19.04	.003

for the pre tested group, but group members who were in T groups that were pre tested did not become significantly more trusting.

Cohesion:

Simple students t's were conducted on pre and post test scores of the experimental groups. The results of these were that both were significant with a t= to 2.47 being obtained for the experimental group and a t of 2.39 resulting for the placebo. Both of these were significant at beyond the .05 level.

The cohesion scores were obtained by use of a sociometric device (Appendix A). The researchers observations lead them to believe that the device was more a measure of "knowing a group" than of cohesion. These observations are supported by these findings since members of both groups selected a significantly higher number of group members to attend a mythical picnic. However, expected changes did not occur which would be expected if cohesion occurred.

Self Disclosure:

Self disclosure was ascertained by making tape recordings of group sessions and rating participants disclosures using the Crisler Scale (Appendix A). All tapes were made through an external sound system which proved to be faulty. Since ratings were not attempted until after the conclusion of the experiment, the data in this area become unavailable. Consequently no inferences can be drawn regarding self disclosure.

Conclusion:

Little information can be gained by examining the self disclosure variables. Essentially, however, the variables did not move in the expected direction, or when movement did occur, there was a similar movement in the control group.

Discussion, Summary, Conculsions and Recommendations.

Discussion:

Little value can be gained from a lengthy post-mortem of the outcomes. Essentially, T groups were unable to bring about significant changes in personality traits as measured by the 16PF Questionaire of Tolerance for Ambiguity. An IE shift was noted, but since only one variable out of 19 reached significance this change must be noted with skepticism. One significant difference out of 19 would be expected by chance with an alpha level of .05.

Leadership did not appear to be a factor in this research. It should be pointed out, however, that both leaders of groups which were pre-tested were experienced leaders and had much experience. This would seemingly contribute to increased group effectiveness, but this was not the case.

The process variables utilized in the study may be indicative of two things. First, since trust did not change significantly this may be indicative that this variable did not change. It could be speculated that this was because the course was a part of a degree program in Counseling and Guidance and people refused to become trusting. This hypothesis is somewhat weakened by the fact that one of the leaders was not associated with the University.

The researchers feel that the sociometric used to measure cohesiveness was totally ineffective. Therefore, this data is of little value. Similarly, because of the failure to get good self-disclosure measures, little inference can be drawn from this variable.

The major problem with research may well have been the outcome measures. The 16 PF Questionnaire and AT-20 may not be appropriate outcome measures. Perhaps what should be done is that behavioral criteria should be established which are in line with the objectives of T-groups.

Conclusions:

1. The experimental T-groups were not significantly better than the placebo group in bringing about change as measured by outcome measures.
2. Leadership did not appear to be an important variable since both leaders were experienced in leading T-groups.
3. Few inferences can be drawn from the process measures because of the instruments utilized and the failure to collect data properly in certain instances.

Recommendations:

1. In the next research the desired outcomes of groups should be studied more carefully and behavioral criteria established.
2. Other types of groups such as Gestalt groups should be compared to T-groups as means of promoting psychological growth among students.
3. A new instrument should be utilized to measure cohesion in future studies.
4. The leadership variable should be scrutinized carefully in future studies.

ROTTER INTERPERSONAL TRUST SCALE

General Opinion Survey

This is a questionnaire to determine the attitudes and beliefs of different people on a variety of statements. Please answer the statements by giving as true a picture of your own beliefs as possible. Be sure to read each item carefully and show your beliefs by marking the appropriate number to the right of each statement. Circle the number one if you strongly agree with an item, 2 if you mildly agree, 3 if you feel that the item is about equally true as untrue, 4 if you mildly disagree, and 5 if you strongly disagree. Be sure to answer for each item. Please do not leave any blanks.

1. Strongly Agree 2. Mildly Agree 3. Agree & Disagree Equally

4. Mildly Disagree 5. Strongly disagree

1.	Most people would rather live in a climate that is mild all year around than in one in which winters are cold.	1 2 3 4 5
2.	Hypocrisy is on the increase in our society.	1 2 3 4 5
3.	In dealing with strangers, one is better off to be cautious until they have provided evidence that they are trustworthy.	1 2 3 4 5
4.	This country has a dark future unless we can attract better people into politics.	1 2 3 4 5
5.	Fear of social disgrace or punishment rather than conscience prevents most people from breaking the law.	1 2 3 4 5
6.	Parents usually can be relied upon to keep their promises.	1 2 3 4 5
7.	The advice of elders is often poor because the older person doesn't recognize how times have changed.	1 2 3 4 5
8.	Using the Honor System of not having a teacher present during exams would probably result in increased cheating.	1 2 3 4 5
9.	The United Nations will never be an effective force in keeping world peace.	1 2 3 4 5
10.	Parents and teachers are likely to say what they believe themselves and not just what they think is good for the child to hear.	1 2 3 4 5
11.	Most people can be counted on to do what they say they will do.	1 2 3 4 5

1. Strongly Agree 2. Mildly Agree 3. Agree & Disagree Equally

4. Mildly Disagree 5. Strongly Disagree

* * * * *

12.	As evidenced by recent books and movies morality seems on the downgrade in this country.	1 2 3 4 5
13.	The judiciary is a place where we can all get unbiased treatment.	1 2 3 4 5
14.	It is safe to believe that in spite of what people say most people are primarily interested in their own welfare.	1 2 3 4 5
15.	The future seems very promising.	1 2 3 4 5
16.	Most people would be horrified if they knew how much news the public hears and sees is distorted.	1 2 3 4 5
17.	Seeking advice from several people is more likely to confuse than it is to help one.	1 2 3 4 5
18.	Most elected public officials are really sincere in their campaign promises.	1 2 3 4 5
19.	There is no simple way of deciding who is telling the truth.	1 2 3 4 5
20.	This country has progressed to the point where we can reduce the amount of competitiveness encouraged by schools and parents.	1 2 3 4 5
21.	Even though we have reports in newspapers, radio and television, it is hard to get objective accounts of public events.	1 2 3 4 5
22.	It is more important that people achieve happiness than that they achieve knowledge.	1 2 3 4 5
23.	Most experts can be relied upon to tell the truth about the limits of their knowledge.	1 2 3 4 5
24.	Most parents can be relied upon to carry out their threats of punishment.	1 2 3 4 5
25.	One should not attack the political beliefs of other people.	1 2 3 4 5
26.	In these competitive times one has to be alert or someone is likely to take advantage of you.	1 2 3 4 5
27.	Children need to be given more guidance by teachers and parents than they now typically get.	1 2 3 4 5

1. Strongly Agree 2. Mildly Agree 3. Agree & Disagree Equally

4. Mildly Disagree 5. Strongly Disagree

* * * * * *

28.	Most rumors usually have a strong element of truth.	1 2 3 4 5
29.	Many major national sport contests are fixed in one way or another.	1 2 3 4 5
30.	A good leader molds the opinions of the group he is leading rather than merely following the wishes of the majority.	1 2 3 4 5
31.	Most idealists are sincere and usually practice what they preach.	1 2 3 4 5
32.	Most salesmen are honest in describing their products.	1 2 3 4 5
33.	Education in this country is not really preparing young men and women to deal with the problems of the future.	1 2 3 4 5
34.	Most students in school would not cheat even if they were sure of getting away with it.	1 2 3 4 5
35.	The hordes of students now going to college are going to find it more difficult to find good jobs when they graduate than did the college graduates of the past.	1 2 3 4 5
36.	Most repairmen will not overcharge even if they think you are ignorant of their specialty.	1 2 3 4 5
37.	A large share of accident claims filed against insurance companies are phony.	1 2 3 4 5
38.	One should not attack the religious beliefs of other people.	1 2 3 4 5
39.	Most people answer public opinion polls honestly.	1 2 3 4 5
40.	If we really knew what was going on in international politics, the public would have reason to be more frightened than they now seem to be.	1 2 3 4 5

AMBIGUITY TOLERANCE

Please do not spend too much time on the following items. There are no right or wrong answers and, therefore, your first response is important. Mark T for true and F for false. Be sure to answer every question.

1. A problem has little attraction for me if I don't think it has a solution. T F

2. I am just a little uncomfortable with people unless I feel that I can understand their behavior. T F

3. There's a right way and a wrong way to do almost everything. T F

4. I would rather bet 1 to 6 on a long short than 3 to 1 on a probable winner. T F

5. The way to understand complex problems is to be concerned with their larger aspects instead of breaking them into smaller pieces. T F

6. I get pretty anxious when I'm in a social situation over which I have no control. T F

7. Practical every problem has a solution. T F

8. It bothers me when I am unable to follow another persons's train of thought. T F

9. I have always felt that there is a clear difference between right and wrong. T F

10. It bothers me when I don't know how other people react to me. T F

11. Nothing gets accomplished in this world unless you stick to some basic rules. T F

12. If I were a doctor, I would prefer the uncertainties of a psychiatrist to the clear and definite work of someone like a surgeon or x-ray specialist. T F

13. Vague and impressionistic pictures really have little appeal for me. T F

14. If I were a scientist, it would bother me that my work would never be completed (because science will always make new discoveries.) T F

15. Before an examination, I feel much less anxious if I know how many questions there will be. T F

16. The best part of working a jigsaw puzzle is putting in the last piece. T F

17. Sometimes I rather enjoy going against the rules and doing things I'm not suppose to do. T F

18. I don't like to work on a problem unless there is a possibility of coming out with a clear-cut and unambiguous answer. T F

19. I like to fool around with new ideas, even if they turn out later to be a total waste of time. T F

20. Perfect balance is the essence of all good composition. T F

ROTTER I-E

Social Attitude Survey

This is a questionnaire to find out the way in which certain important events in our society affect different people. Each item consists of a pair of alternatives lettered a or b. Please select the one statement of each pair (and only one) which you more strongly believe to be the case as far as you're concerned. Be sure to select the one you actually believe to be more true rather than the one you think you should choose or the one you would like to be true. This is a measure of personal belief; obviously there are no right or wrong answers.

Please answer items carefully but do not spend too much time on any one item. Be sure to find an answer for every choice. Circle the letter representing the statement which you choose as the more true of the pair.

In some instances you may discover that you believe both statements or neither one. In such cases, be sure to select the one you more strongly believe to be the case as far as you're concerned. Also try to respond to each item independently when making your choice, do not be influenced by your previous choices.

1. a. Children get into trouble because their parents punish them too much.
   b. The trouble with most children nowadays is that their parents are too easy on them.

2. a. Many of the unhappy things in people's lives are partly due to bad luck.
   b. People's misfortunes result from the mistakes they make.

3. a. One of the major reasons why we have wars is because people don't take enough interest in politics.
   b. There will always be wars, no matter how hard people try to prevent them.

4. a. In the long run people get the respect they deserve in this world.
   b. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.

5. a. The idea that teachers are unfair to students is nonsense.
   b. Most students don't realize the extent to which their grades are influenced by accidental happenings.

6. a. Without the right breaks one cannot be an effective leader.
   b. Capable people who fail to become leaders have not taken advantage of their opportunities.

7. a. No matter how hard you try some people just don't like you.
   b. People who can't get others to like them don't understand how to get along with others.

8. a. Heredity plays the major role in determining one's personality.
   b. It is one's experiences in life which determine what they're like.

9. a. I have often found that what is going to happen will happen.
   b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.

10. a. In the case of the well prepared student there is rarely, if ever, such a thing as an unfair test.
    b. Many times exam questions tend to be so unrelated to course work that studying is useless.

11. a. Becoming a success is a matter of hard work, luck has little or nothing to do with it.
    b. Getting a good job depends mainly on being in the right place at the right time.

12. a. The average citizen can have an influence in government decisions.
    b. This world is run by the few people in power, and there is not much the little guy can do about it.

13. a. When I make plans, I am almost certain that I can make them work.
    b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyway.

14. a. There are certain people who are just no good.
    b. There is some good in everybody.

15. a. In my case getting what I want has little or nothing to do with luck.
    b. Many times we might just as well decide what to do by flipping a coin.

16. a. Who gets to be the boss often depends on who was lucky enough to be in the right place first.
    b. Getting people to do the right thing depends upon ability, luck has little or nothing to do with it.

17. a. As far as world affairs are concerned, most of us are the victims of forces we can neither understand, nor control.
    b. By taking an active part in political and social affairs the people can control world events.

18. a. Most people don't realize the extent to which their lives are controlled by accidental happenings.
    b. There really is no such thing as "luck."

19. a. One should always be willing to admit mistakes.
    b. It is usually best to cover up one's mistakes.

20. a. It is hard to know whether or not a person really likes you.
    b. How many friends you have depends upon how nice a person you are.

21. a. In the long run the bad things that happen to us are balanced by the good ones.
    b. Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.

22. a. With enough effort we can wipe out political corruption.
    b. It is difficult for people to have much control over the things politicians do in office.

23. a. Sometimes I can't understand how teachers arrive at the grades they give.
    b. There is a direct connection between how hard I study and the grades I get.

24. a. A good leader makes it clear to everybody what their jobs are.
    b. A good leader expects people to decide for themselves what they should do.

25. a. Many tines I feel that I have little influence over the things that happen to me.
    b. It is impossible for me to believe that chance or luck plays an important role in my life.

26. a. People are lonely because they don't try to be friendly.
    b. There's not much use in trying too hard to please people, if they like you, they like you.

27. a. There is too much emphasis on athletics in high school.
    b. Team sports are an excellent way to build character.

28. a. What happens to me is my own doing.
    b. Sometimes I feel that I don't have enough control over the direction my life is taking.

29. a. Most of the time I can't understand why politicians behave the way they do.
    b. In the long run the people are responsible for bad government on a national as well as on the local level.

McDONALD REVISED SCALE OF AMBIGUITY TOLERANCE (AT-20)

For the following, pretend that the amounts of money indicated are real. That is, imagine that - depending on the outcome - you would <u>really</u> gain or lose money.

Below you are asked to choose between alternatives X or Y and another person must choose between A or B. If you choose X and the other person chooses A, you will each receive $8.00, and if you choose X and he chooses B, you will lose $10.00 (your outcome is always above the first figure) and he will gain $10.00. If you choose Y and he chooses A, you will gain $10.00, and he will lose $10.00, and if you choose Y and he chooses B, you will each lose $8.00

Make your choice by placing a circle around X or Y. Bear in mind that you are <u>the first to choose</u>. <u>Before</u> the other makes his choice, <u>he will be told what your choice was</u>. Think carefully. Now make your choice.

		Other Person: A	Other Person: B
You	X	+ $8/ +$8	- $10/ +$10
	Y	+ $10/ -$10	- $8/ -$8

Circle <u>one</u>: X Y

Crisler Adaptation of the Carkhuff

Self-Disclosure Scale

	GROUP MEMBERS								
	L	1	2	3	4	5	6	7	8
Actively attempts to remain ambigious. If he is self-disclosing he does so out of his own needs. Oblivious to needs of clients.	1	1	1	1	1	1	1	1	1
No self-disclosure except in response to a direct question. Responses are brief, vague, and superficial.	2	2	2	2	2	2	2	2	2
Volunteers personal information but nothing which identifies him as a unique person. Content is centered on clients reaction.	3	3	3	3	3	3	3	3	3
Volunteers information freely and spontaneously. Reveals information in a constructive way. Exposes intimate feelings, values and beliefs.	4	4	4	4	4	4	4	4	4
Volunteers very intimate and detailed material about self. Reveals material that might be embarrassing under other circumstances. Function is in a constructive manner at most intimate level of self-disclosure.	5	5	5	5	5	5	5	5	5

899 8:71

SOCIOMETRICS

On an afternoon during a vacation you have a chance to do something you really like -- go to a movie, on a picnic, on a short trip or something like that. You have been told that you can take any of the following members of the group along with you. Put an X through the number(s) before the name or names of those members of the group whom you would like to invite.

(1)

(2)

(3)

(4)

(5)

(6)

(7)

(8)

(9)

(10)

(11)

(12)

Please make sure your own name is crossed out.
"Put an X through the number before each name you choose."

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